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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/033,657	ANGAL ET AL.
	Examiner	Art Unit	
	Ryan F. Pitaro	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>23 February 2007</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-58</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-58</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06) Office Action Summary Part of Paper No./Mail Date 20070429

DETAILED ACTION

1.   Claims 1-58 have been examined.

Response to Amendment

2.   This action is responsive to the communication filed 2/23/2007. Claims 1-58 are

pending, Claims 1-58 have been amended.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-3, 5-58 rejected under 35 U.S.C. 103(a) as being unpatentable over Ali

et al ("Ali", WO 01/44932) in view of Li et al ("Li", US 6799299).

        As per independent claim 1, Ali discloses a method comprising: receiving a

schema having elements (Ali, Figure 4A item 410); receiving an instance related to said

schema (Ali, Figure 4A item 414); receiving a display specification (Ali, Figure 4A item

412); and generating a display (Ali, Figure 4A item 424). Ali does not distinctly point out a display specification having rules for schema elements, and generating a display based on the schema elements and the display specification rules. However, Li teaches receiving a schema for any XML instance (Column 6 lines 19-29); the display specification having pattern matching rules for XML schema elements (Column 7 line 51 – Column 8 lines 25); and generating user interface based on XML schema elements and said display specification; and populating said user interface with contents of said XML instance (Column 8 lines 3-61). Therefore it would have been obvious to an artisan at the time of the invention to combine the specification Li with the method of Ali. Motivation to do so would have been to allow users to customize an array of documents interface based upon a single customization.

As per claim 2, which is dependent on claim 1, Ali-Li discloses a method wherein the display specification further comprises presenters, wherein the presenters determine how the XML instance appears on the user interface (Ali, Figure 7B).

As per claim 3, which is dependent on claim 2, Ali-Li discloses a method wherein the actions modify the presenters (Ali, Figure 7B item 700).

As per claim 5, which is dependent on claim 1, Ali-Li discloses a method wherein the display specification further comprises presenters selected from the group consisting of tree, tabbed, list, and form (Ali, Page 22 lines 9-10).

As per claim 6, which is dependent on claim 5, Ali-Li discloses a method wherein the presenters may have embedded within them presenters (Ali, Page 10 lines 22-26).

As per claim 7, which is dependent on claim 1, Ali-Li discloses a method wherein the display specification further comprises display attributes selected from the group consisting of, font name, font style, font size, icons, access mode, folder, hiding, editor, lines, graphics, sound, and color (Ali, Figure 4A item 412; *XSL allows you define the appearance of XML elements, through fonts, sizes, colors, etc.).*

As per claim 8, which is dependent on claim 1, Ali-Li discloses a method wherein the schema has a structure selected from the group consisting of a tree and directed graph (Ali, Page 5 lines 14-16).

As per claim 9, which is dependent on claim 1, Ali-Li discloses a method wherein the schema and instance are well formed (Ali, Page 5 lines 3-8; *wherein an XSL processor will not proceed if XML data and schema are not well-formed*).

As per claim 10, which is dependent on claim 1, Ali-Li discloses a method wherein the schema and instance are compliant with the extensible markup language (XML) (Ali, Page 15 lines 8-10;*XML schema and XML data*).

As per claim 11, which is dependent on claim 1, Ali-Li discloses a method wherein the display specification is compliant with the extensible markup language (XML) (Ali, Page 15 lines 8-10;*XSL templates*).

As per claim 12, which is dependent on claim 11, Ali-Li discloses a method wherein the display specification supports node selection from the group consisting of xmlns:Tagname, any:Tagname, any:any, and xpath language (Ali, page 15 lines 8-10; *wherein XSL templates include xmlns in type declarations*).

As per claim 13, which is dependent on claim 11, Ali-Li discloses a method wherein the display specification supports instance display attributes selected from the group consisting of hide, hide children, and override (Ali, *hiding and overriding are a part of XML data and XML schema which is supported by the XSL template*).

As per claim 14, which is dependent on claim 1, Ali-Li discloses a processing system comprising a processor, which when executing a set of instructions performs the method (Ali, Figure 4A item 302).

As per claim 15, which is dependent on claim 1, Ali-Li discloses a machine-readable medium having stored thereon instructions, which when executed performs the method (Ali, Figure 4D item 304).

As per claim 16, which is dependent on claim 1, Ali-Li discloses a method further comprising receiving information from the generated user interface(Ali, Figure 7A).

As per claim 17, which is dependent on claim 16, Ali-Li discloses a method wherein the information is from a user input (Ali, Figure 7A item 706 to Figure 7B).

As per claim 18, which is dependent on claim 1, Ali-Li discloses a method wherein the display specification further comprises presenters, wherein presenters may receive information from a user input (Ali, Figure 7A items 706,710; *Type a question*).

As per claim 19, which is dependent on claim 18, Ali-Li discloses a method further comprising actions, wherein the actions are based on information received by the presenters (Ali, Figure 7A 706 to Figure 7B).

As per independent claim 20, Ali discloses a method comprising: receiving an XML schema (Ali, Figure 4A item 410). Ali does not distinctly point out a display

specification having rules for schema elements, and generating a display based on the

schema elements and the display specification rules. However, Li teaches receiving a

schema for any XML instance (Column 6 lines 19-29); the display specification having

rules for XML schema elements (Column 7 line 51 – Column 8 lines 25); and generating

user interface based on XML schema elements and said display specification; and

populating said user interface with contents of said XML instance (Column 8 lines 3-61).

Therefore it would have been obvious to an artisan at the time of the invention to

combine the specification Li with the method of Ali. Motivation to do so would have been

to allow users to customize an array of documents interface based upon a single

customization.

As per claim 21, which is dependent on claim 20, Ali-Li discloses a method

wherein the display specification is well formed (Ali, Page 5 lines 3-8; *wherein an XSL*

processor will not proceed if XML data and schema are not well-formed).

As per claim 22, which is dependent on claim 20, Ali-Li discloses a method

wherein the display specification is compliant with the extensible markup language

(XML) (Ali, Page 15 lines 8-10).

As per claim 23, which is dependent on claim 20, Ali-Li discloses a method

wherein dynamically generating the user interface is further based upon an XML data

instance (Ali, Figure 4A item 414).

As per claim 24, which is dependent on claim 20, Ali-Li discloses a method

wherein the display specification further comprises presenters, wherein the presenters

determine how an XML data instance appears on the user interface (Ali, Figure 7B).

As per claim 25, which is dependent on claim 24, Ali-Li discloses a method wherein the display specification further comprises actions, wherein the actions modify the presenters (Ali, Figure 7B item 700).

As per claim 26, which is dependent on claim 20, Ali-Li discloses a method wherein the display specification further comprises presenters selected from the group consisting of tree, tabbed, list, and form (Ali, Page 22 lines 8-10).

As per claim 27, which is dependent on claim 26, Ali-Li discloses a method wherein the presenters may have embedded within them presenters (Ali, Page 10 lines 22-26).

As per claim 28, which is dependent on claim 20, Ali-Li discloses a method wherein the display specification further comprises display attributes selected from the group consisting of font name, font style, font size, icons, access mode, folder, hiding, editor, lines, graphics, sound, and color (Ali, Figure 4A item 412; *XSL allows you define the appearance of XML elements, through fonts, sizes, colors, etc.*).

As per claim 29, which is dependent on claim 20, Ali-Li discloses a method wherein the display specification further comprises an editor type selected from the group consisting of forms, check boxes, radio buttons, check lists, combo box, drop down list, tables, text, label, text window, and graphics (Ali, Figure 8A; *type a question, change a picture, change name item 804*).

As per claim 30, which is dependent on claim 29, Ali-Li discloses a method wherein the display specification supports restriction of any schema element and/or

attribute (Ali, *the support of XML schema by the XSL includes type definition which is a restriction or an extension*).

As per claim 31, which is dependent on claim 20, Ali-Li discloses a processing system comprising a processor, which when executing a set of instructions performs the method (Ali, Figure 4A item 302).

As per claim 32, which is dependent on claim 20, Ali-Li discloses a machine-readable medium having stored thereon instructions, which when executed performs the method (Ali, Figure 4D item 304).

As per claim 33, which is dependent on claim 20, Ali-Li discloses a method further comprising receiving information from the dynamically generated user interface (Ali, Figure 7A).

As per claim 34, which is dependent on claim 20, Ali-Li discloses a method wherein the information is from a user input (Ali, Figure 7A item 706 to Figure 7B).

As per claim 35, which is dependent on claim 20, Ali-Li discloses a method wherein the display specification further comprises presenters, wherein presenters may receive information from a user input (Ali, Figure 7A item 706-710;*type a question*).

As per claim 36, which is dependent on claim 35, Ali-Li discloses a method further comprising actions, wherein the actions are based on information received by the presenters (Ali, Figure 7A item 706 to Figure 7B).

As per claim 37, which is dependent on claim 36, Ali-Li discloses a method wherein the actions may communicate to a destination selected from the group consisting of another program, a database, a user interface, a data instance, a

processor, an XML instance, a schema, the XML schema, and the display specification (Ali, Page 16 lines 6-15).

As per independent claim 38, Ali discloses a method comprising: receiving a schema having elements (Ali, Figure 4A item 410); receiving an instance related to said schema (Ali, Figure 4A item 414); receiving a display specification (Ali, Figure 4A item 412); and generating a display (Ali, Figure 4A item 424). Ali does not distinctly point out a display specification having rules for schema elements, and generating a display based on the schema elements and the display specification rules. However, Li teaches receiving a schema for any XML instance (Column 6 lines 19-29); the display specification having rules for XML schema elements (Column 7 line 51 – Column 8 lines 25); and generating user interface based on XML schema elements and said display specification; and populating said user interface with contents of said XML instance (Column 8 lines 3-61). Therefore it would have been obvious to an artisan at the time of the invention to combine the specification Li with the method of Ali. Motivation to do so would have been to allow users to customize an array of documents interface based upon a single customization.

As per claim 39, which is dependent on claim 38, Ali-Li discloses an apparatus wherein the display specification is well formed (Ali, Page 5 lines 3-8; *wherein an XSL processor will not proceed if XML data and schema are not well-formed*).

As per claim 40, which is dependent on claim 38, Ali-Li discloses an apparatus wherein means for generating a display further comprises means for a user to view information related to the instance (Ali, Figure 7A).

As per claim 41, which is dependent on claim 40, Ali-Li discloses an apparatus further comprising means for the user to modify information related to the instance (Ali, Page 19 lines 6-8).

As per claim 42, which is dependent on claim 38, Ali-Li discloses an apparatus wherein the schema and instance are compliant with the extensible markup language (XML) (Ali, Page 15 lines 8-10; *XML schema and XML data*).

As per claim 43, which is dependent on claim 38, Ali-Li discloses a machine-readable medium having stored thereon information representing the apparatus (Ali, Figure 4D item 304).

As per claim 44, which is dependent on claim 38, Ali-Li discloses an apparatus further comprising receiving information from the display (Ali, Figure 7A).

As per claim 45, which is dependent on claim 44, Ali-Li discloses an apparatus wherein the information is from a user input (Ali, Figure 7A item 706-Figure 7B).

As per claim 46, which is dependent on claim 38, Ali-Li discloses an apparatus wherein the display specification further comprises presenters, wherein presenters may receive information from a user input (Ali, Figure 7A items 706, 710; *type a question*).

As per claim 47, which is dependent on claim 46, Ali-Li discloses an apparatus further comprising actions, wherein the actions are based on information received by the presenters (Ali, Figure 7A item 706 to Figure 7B).

As per claim 48, which is dependent on claim 47, Ali-Li discloses an apparatus wherein the actions may communicate to a destination selected from the group consisting of another program, a database, a user interface, a data instance, a

processor, an XML instance, a schema, the XML schema, and the display specification (Ali, Page 16 lines 6-15).

As per independent claim 49, Ali-Li discloses a system comprising a processor, which when executing a set of instructions, performs the following: retrieves a schema having elements (Ali, Figure 4A item 410); retrieves any data related to said schema (Ali, Figure 4A item 414, Li, Column 6 lines 19-29); retrieves a display specification having rules for schema elements (Li, Column 7 line 51 – Column 8 lines 25); generates a user interface based on said schema elements, said display specification rules, and said data; and populates said user interface with contents of said data (Li, Column 8 lines 3-61) .

As per claim 50, which is dependent on claim 49, Ali-Li discloses a system wherein the user interface format is generated dynamically based substantially upon the schema (Ali, Page 18 lines 10-14).

As per claim 51, which is dependent on claim 49, Ali-Li discloses a system wherein the user interface further comprises: receiving a user input; and modifying the data (Ali, Page 19 lines 6-8).

As per claim 53, which is dependent on claim 49, Ali-Li discloses a system further comprising receiving information from the user interface (Ali, Figure 7A).

As per claim 54, which is dependent on claim 53, Ali-Li discloses a system wherein the information is from a user input (Ali, Figure 7A item 706 to Figure 7B).

As per claim 55, which is dependent on claim 49, Ali-Li discloses a system wherein the display specification further comprises presenters, wherein presenters may receive information from a user input (Ali, Figure 7A items 706,710; *type a question*).

As per claim 56, which is dependent on claim 55, Ali-Li discloses a system further comprising actions, wherein the actions are based on information received by the presenters (Ali, Figure 7A item 706 to Figure 7B).

As per claim 57, which is dependent on claim 56, Ali-Li discloses a system wherein the actions may communicate to a destination selected from the group consisting of another program, a database, another user interface, a data instance; a processor, an XML instance, the schema, the data, the user interface, and the display specification (Ali, Page 16 lines 6-15).

As per independent claim 58, Ali discloses an apparatus for dynamically generating a user interface comprising: means for receiving an XML schema having elements (Ali, Figure 4A item 410); means for receiving an XML instance related to said schema (Ali, Figure 4A item 414); means for receiving an XML compliant display specification having actions and presenters (Ali, Figure 4A item 412; page 27 lines 9-10) means for receiving a user input from the user interface (Ali, Figure 7A items 706,710; *type a question)*, and means for communicating to a program or processor through actions and presenters (Ali, Figure 7A item 706 to Figure 7B; Figure 4A item 422). Ali does not distinctly point out a display specification having rules for schema elements, and generating a display based on the schema elements and the display specification rules. However, Li teaches receiving a schema for any XML instance (Column 6 lines

place for a long time, online transactions reduce the need for extra employees and

allows for faster transactions because there is no need for waiting for checks to clear

before the product is shipped for example. Therefore it would have been obvious to an

artisan at the time of the invention to combine the system of Ali-Li with the current

teaching of transferring payments. Motivation to do so would have been to provide a

faster way of doing business.

Response to Arguments

Applicant's arguments filed 2/23/2007 have been fully considered but they are

not persuasive.

Applicants argue that they claim no use of style sheets. While this may be true

the Examiner believes that the claim language still includes the use of style sheets.

The term "stylesheet" is somewhat misleading, because it includes a general capability

for transforming the document's source tree into an output tree, based on a set of

construction rules. The output tree can be another document object model defined by a

different schema, and the construction rules will map target elements from the source

tree into corresponding elements in the output tree. The term "tree" is used to signify the

composite structure of the document object model hierarchy of nodes. Each output

element is called a "flow object," and the XSL specification includes definition of a

standard set of flow objects, analogous to a standard class library in Java. Initially, a set

19-29); the display specification having rules for XML schema elements (Column 7 line

51 – Column 8 lines 25); and generating user interface based on XML schema elements

and said display specification; and populating said user interface with contents of said

XML instance (Column 8 lines 3-61). Therefore it would have been obvious to an artisan

at the time of the invention to combine the specification Li with the method of Ali.

Motivation to do so would have been to allow users to customize an array of documents

interface based upon a single customization.

5.   Claims 4 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ali et al ("Ali", WO 01/44932) in view of Li et al ("Li", US 6799299).

As per claim 4, which is dependent on claim 3, Ali-Li fails to expressly point out

type checking and structural validation. However, Official Notice is taken that type

checking and structural validation are well known in the art of XML schemas. Type

checking adds overhead, but if data accuracy and integrity is important, then using

DTDs alone is not very helpful, thus the use of XML schemas in the current invention.

Therefore it would have been obvious to an artisan at the time of the invention to

combine the method of Ali-Li with the current teaching of type checking. Motivation to do

so would have been to provide accurate information.

As per claim 52, which is dependent on claim 49, Ali-Li fails to disclose

transferring a payment and/or a credit. However, Official Notice is taken that transferring

a payment and/or a credit is well known in the art. Online transactions have been taking

of flow objects will be defined that allow XML documents to be transformed into HTML

documents, which can then be viewed in existing Web browsers. Whereas only one

construction rule can be applied to each element in the source tree, any number of style

rules can be applied. Style rules do not create new flow objects, but modify the

characteristics of flow objects produced by construction rules. If you are familiar with

rule-based expert systems, these style sheets look like a knowledge-base for document

transformation. Each construction rule contains a pattern that identifies the source

element to which the rule applies, and an action that specifies the flow object to be

created. There is even a conflict resolution algorithm for choosing from among multiple

rules that might be applied to a particular element.

Therefore until the Applicant differs the claim language to exclude the Examiner

from using style sheets the Examiner will continue to apply Style sheet art. It is the

Office's policy to take the broadest reasonable interpretation; Furthermore simply

because the Applicant states that the invention is different from style sheets is not

enough to overcome the art. The Applicant must show how the cited art differs from the

claim language to successfully overcome it.

The Applicant contested the Official Notice taken; however, if applicant does not

traverse the examiner's assertion of official notice or applicant's traverse is not

adequate, the examiner should clearly indicate in the next Office action that the

common knowledge or well-known in the art statement is taken to be admitted prior

art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. Official Notice was taken in the office action dated 7/25/2005, an indication was clearly made in the office action dated 12/15/2005. Therefore the subject matter set forth under Official Notice on 7/25/2005 is said to be well known in the art.

The Applicant lastly argues that Li fails to disclose receiving any XML instance, and that Li is only for similarly structured XML documents. However, in the claimed invention the XML instance is received first and all steps are based off of the instance received. The same goes for Li, the process begins with an XML document of any type that a user wants to transform into another type. Then based off of that any instance a user can use a similar XML document using a XSL stylesheet. Therefore initially Li uses any instance, then later in the reverse order only uses instances that fit the stylesheet after it is created.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan F. Pitaro whose telephone number is 571-272-4071. The examiner can normally be reached on 7:00am - 4:30pm M-Th, and alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on 571-272-4063. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan Pitaro
Art Unit 2174
Patent Examiner

RFP

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